

UTILITY SYSTEMS ANALYST

510

DEPARTMENT: JCSA/Utility Operations

NATURE OF WORK:

Performs system development for automated management systems, Supervisory Control and Data Acquisition system (SCADA), and associated JCSA networks. This includes program development, integration and installation, system maintenance (hardware and software), and access and security. Also responsible for the regulation of the Operations Divisional administrative actions, while overseeing all functions of the JCSA automation systems, dispatch and customer service personnel. Provides administrative and analytical support to supervisory staff. Conducts the analysis necessary for securing facts concerning operations, related cost accounting, information reporting, material expenditures, and equipment utilization.

Duties are performed under the managerial direction of the Utility Operations Administrator.

ESSENTIAL FUNCTIONS OF THE JOB:

Designs automation programs, plans system integration, implements, and then manages the JCSA's Operations and Maintenance Management systems, SCADA and computer network operations. Performs initial programming, account/user-ID and pass word creation, classification, and modification within each database administered by the JCSA. Develops and implements policies and procedures related to database and systems performance.

Performs all aspects of data base and network administration including user interface, capacity planning, maintenance, security and access control, restoration and back up supervision, and quality assurance of records in the data base. Interfaces with users to collect and maintain information on the needs and activities of the JCSA computer systems. Provides statistical summaries for subsequent modifications and/or restructuring of the databases and systems.

Configures and sustains SCADA, and computer processed telemetry alarm systems, for JCSA facilities and infrastructure. Participates in product evaluation relevant to data systems and the operation of JCSA computers.

Performs operational studies and trend analysis of the wastewater collection and water production maintenance systems.

Troubleshoots and repairs all hardware and software applications.

Collects and analyzes information and prepares reports for use by JCSA management, such as workload performance indicator reports, effectiveness and efficiency measures, and costs accounting data. Collects information to track cost management for JCSA equipment and material usage.

Establishes priorities and assigns work to staff. Assists staff with interpretation of policies; examines and compares data for verification or discrepancies; reconciles errors; and ensures accuracy.

Sets standards and objectives for work unit. Administers all program areas to include all procedural and record keeping requirements; ensuring that program is administered in accordance with established procedures, guidelines and regulatory requirements.

Handles a variety of administrative details including radio communications, dispatch duties, customer complaints and notification of interruptions of service, which involves contact with JCSA personnel, citizens and various County officials and representatives.

JOB LOCATION AND EQUIPMENT OPERATED:

Duties are performed in an office setting. Requires prolonged periods of sitting and the ability of walking short distances. Operates automated systems, computer keyboard, telephone, copier, and radio.

REQUIRED KNOWLEDGE, SKILLS, AND ABILITIES:

Knowledge of data base management systems and their applications. Complete understanding of the concepts of data base file structures to include performance monitoring, restructuring, system testing, software package installation and testing, security, backup, recovery, and restart techniques.

Demonstrated ability to resolve problems related to data base design and computer system operations. Able to setup computer systems and install related software.

Proficiency with programs such as "Visual Basics." Using both to create programs that enhance the utility operation, and as tools to interface between two major programs.

Ability to research requirements to interface programs, such as Hansen and the County's GIS, and to then engineer the interface.

Ability to develop effective working relationships with JCC and JCSA personnel.

Ability to work with a diverse work force from field personnel to office and technical employees.

Thorough knowledge of standard office practices and procedures, equipment and its application to the area of assignment.

Ability to exercise independent judgment and make independent decisions, and possess the competence to plan, supervise, and evaluate the work of subordinates.

MINIMUM QUALIFICATIONS:

Associate's Degree in Management Information Systems, or a related field with major course work in computer science; experience performing system integration, analytical or research work; broad conceptual knowledge of data base administration to include experience with varied software systems and troubleshooting software or hardware problems; or any equivalent combination of acceptable education and experience providing the knowledge, abilities, and skills cited above.

IDENTIFICATION OF GENERAL APTITUDES AND PHYSICAL REQUIREMENTS

Position Title Utility Systems Analyst
Department JCSA

Position Number 510
Division Utility Operations

The Americans with Disabilities Act requires that we identify the general aptitudes and physical requirements needed to perform the job listed above. Individuals who have the position must be able to perform all essential job functions unaided or with reasonable accommodation.

I. Mental Abilities: General learning ability. The ability to “catch on” or understand instructions and underlying principles.

- ☒ Ability to understand and follow oral instruction
- ☒ Ability to understand and follow written instruction
- ☒ Ability to guide and/or give instructions
- ☒ Ability to make decisions in accordance with established procedures and policies
- ☐ Not essential to job function

II. Verbal Abilities: Ability to understand meanings of words and ideas associated with them and to use them effectively. To comprehend language, to understand relationships between words, and to understand meanings of whole sentences and paragraphs. To present information or ideas clearly.

1. Speaking/Talking:

- ☒ Answering telephone, radio, or switchboard
- ☒ Communicating with County officials
- ☒ Communicating with general public
- ☒ Communicating with vendors
- ☒ Communicating with supervisors and/or with other employees
- ☒ Communicating with others must have ability to convey technical meanings
- ☐ Not essential to job function

2. Hearing/Listening:

- ☒ For communication with County officials, public, vendors, supervisors and/or other employees
- ☐ Not essential to job function

3. Reading: (ability to read and understand text)

- ☒ Essential to job function
- ☐ Not essential to job function

III. Numerical: Ability to perform arithmetic operations quickly and accurately.

- ☒ Ability to mentally perform accurate two digit calculations
- ☒ Ability to perform accurate calculations aided
by a calculator, adding machine or measurement device

IV. Spatial Abilities: Ability to comprehend forms in space and understand relationships of plane and solid objects. May be used in such tasks as blue print reading and in solving geometry problems. Frequently described as the ability to “visualize” objects of two or three dimensions, or to think visually of geometric forms.

- ☒ Essential function
- ☐ Not essential function

V. Motor Coordination: Ability to coordinate eyes and hands or fingers rapidly and accurately in making precise movements with speed. Ability to make a movement response accurately and quickly.

1. Manual Dexterity: Ability to move the hands easily and skillfully. To work with the hands in placing and turning motions.

- | | |
|--------------------------------------------------------|----------------------------------------------------------------------------|
| <input checked="" type="checkbox"/> Use telephone | <input checked="" type="checkbox"/> Manipulate computer keyboard and mouse |
| <input type="checkbox"/> Use switchboard | <input type="checkbox"/> Use postage machine |
| <input checked="" type="checkbox"/> Use radio/console | <input checked="" type="checkbox"/> Use hand tools |
| <input checked="" type="checkbox"/> Use a calculator | <input type="checkbox"/> Use power tools |
| <input checked="" type="checkbox"/> Use a copy machine | <input type="checkbox"/> Other: _____ |
| <input checked="" type="checkbox"/> Use a fax machine | <input type="checkbox"/> Not essential to job function |

2. Finger Dexterity: Ability to move the fingers and manipulate small objects with the fingers rapidly or accurately. For example: electrical wiring.

- ☒ Essential to job function
- ☐ Not essential to job function

Explain: Position requires repair actions on automation equipment, i.e., computer, printers, etc.

VI. Physical Demands:

1. **Strength**: The quality, state or property of being strong. The power to withstand strain, force or stress.

Please check (✓) in appropriate boxes below.

Ability to manipulate materials and/or equipment (lbs)							Frequency of Manipulation		
	5-	5-10	10-15	15-25	25-50	50+	Occasionally	Frequently	Continuously
Lift					✓		✓		
Push/Pull					✓		✓		
Hold/Carry					✓		✓		

Manipulation done from: ☒ ground to waist ☒ waist level ☒ waist to shoulder ☐ above shoulder
(Check all that apply)

Not essential to job function: ☐ Lift ☐ Push/Pull ☐ Hold/Carry (Check all that apply)

2. **Climbing**: To move up or mount by using the hands or feet.

Ladders

- ☒ Step stool
- ☐ 8' to 10' step ladder
- ☐ Extension ladder
- ☐ Other _____
- ☐ Not essential to job function

Stairways

- ☒ 1 flight
- ☐ 2 flights
- ☐ 3 or more flights
- ☐ Other _____
- ☐ Not essential to job function

Steps

- ☐ 1-2
- ☐ 2-3
- ☐ 3-4
- ☒ Other as many as 25
- ☐ Not essential to job function

3. **Ability to Stand, Sit, Walk, and Run**:

Please check (✓) in appropriate boxes below.

Duration (hours/day)							Occasionally	Frequently	Continuously
	0-1	1-3	3-5	5-7	7-9	9+			
Stand		✓					✓		
Sit			✓					✓	
Walk	✓						✓		
Run									

If walking or running, over what type of terrain? ☒ flat ☐ rough ☐ both

Not essential to job function: ☐ Stand ☐ Sit ☐ Walk ☒ Run (Check all that apply)

4. Stooping, Kneeling, Crouching, and /or Crawling:

To bend forward or down from the middle of the waist or the middle of the back, to bend downwards, to lower oneself and/or to move freely on hands and knees.

Daily Amounts

- ☐ 0-5x ☒ 5-20x ☐ 20-50x ☐ 50+x
☐ Other _____ ☐ Not essential to job function

5. Reaching, Handling, Fingering, and/or Feeling:

To stretch out, extend, or put forth a bodily part. To touch or grasp something, by extending or stretching. To touch, lift, hold or operate with the hands.

Daily Amounts

- ☐ 0-5x ☒ 5-20x ☐ 20-50x ☐ 50+x
☐ Other _____ ☐ Not essential to job function

6. Seeing: To perceive or comprehend by the sense of sight.

Essential to job function: These characteristics are necessary (Check all that apply)

- ☐ Peripheral vision
☐ Night vision
☒ Focus (distinctness or clarity)
☒ Color perception (discriminate between colors)
☒ Depth perception (determine distance relationship between objects)

VII. Driving: The ability to transfer or convey in a vehicle.

Transmission	Standard	Automatic	Multi-Gears
Car	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Van	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Small Truck	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Medium Truck	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Large Truck	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Truck w/Equipment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Heavy Bus Equipment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Not essential to job function	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other (list) _____			